What is claimed is:

1. A method for identifying an antiviral candidate molecule, which comprises

contacting a test molecule with a nucleic acid comprising a nucleotide sequence identical to or substantially identical to a nucleotide sequence in a central flap nucleic acid sequence of a retrovirus, wherein the nucleic acid comprises a quadruplex structure, and

detecting an interaction between the test molecule and the nucleic acid, whereby a test molecule that interacts with the nucleic acid is identified as an antiviral candidate molecule.

2. The method of claim 1, wherein the retrovirus is selected from the group consisting of human immunodeficiency virus (HIV), simian immunodeficiency virus (SIV), visna/maedi virus (VMV), caprine arthritis-encephalitis virus (CAEV), equine infectious anaemia virus (EIAV), feline immunodeficiency virus (FIV), bovine immunodeficiency virus (BIV), murine leukemia virus (MLV), human immunodeficiency virus (HIV), equine infectious anaemia virus (EIAV), mouse mammary tumor virus (MMTV), Rous sarcoma virus (RSV), Fujinami sarcoma virus (FuSV), Moloney murine leukemia virus (Mo-MLV), FBR murine osteosarcoma virus (FBR MSV), Moloney murine sarcoma virus (Mo-MSV), Abelson murine leukemia virus (A-MLV), avian myelocytomatosis virus-29 (MC29), and avian erythroblastosis virus (AEV).

3. The method of claim 1, wherein the retrovirus is HIV.

4. The method of claim 1, wherein the nucleic acid comprises the nucleotide sequence TTG_6TA.

5. The method of claim 1, wherein the nucleic acid comprises the nucleotide sequence CAG_4AA.

6. The method of claim 1, wherein the nucleic acid comprises the nucleotide sequence $TTG_6TACAGTGCAG_4AA$.

7. The method of claim 1, wherein the nucleic acid is incubated in a solution comprising potassium ions.

8. The method of claim 1, wherein the quadruplex is an intermolecular structure.

9. The method of claim 1, wherein the quadruplex is an intermolecular parallel structure.

10. The method of claim 1, wherein the quadruplex is an intermolecular structure formed by a dimer of two intramolecular hairpin structures.

11. The method of claim 1, wherein the interaction is detected by circular dichroism.

12. The method of claim 1, wherein the interaction is binding of the test molecule to the nucleic acid.

13. Information characterizing the structure of an antiviral candidate molecule identified by the method of claim 1.

14. A method for inhibiting retroviral proliferation in a system, which comprises contacting a system comprising a retrovirus with an antiviral candidate molecule identified by the method of claim 1; whereby the candidate molecule inhibits retroviral proliferation in the system.

15. The method of claim 14, wherein the system is a cell.

16. The method of claim 14, wherein the system is a subject.